

Damage Agent:	annosus root disease
	<i>Heterobasidion annosum</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:31:26 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:33:12 PM
FS Region:	Region 4
Host(s):	California Red Fir, Douglas-Fir, Engelmann Spruce, Fir Spp., Grand Fir, Jeffrey Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, White Fir
Survey Method:	General Observation
Setting(s):	Rural Forest
Pest Origin:	Native
Acres Affected:	0
Affected Area:	
Narrative:	
This fungal root disease can be found infecting host species throughout the Intermountain Region. As a disease causing agent, the full ecological effects of this organism have never been evaluated over long temporal and spatial scales. However, by killing planted or naturally regenerated seedlings and saplings (particularly, ponderosa pine on dry sites), <i>H. annosum</i> can cause significant economic losses. This organism is also a saprophyte, and has a vital role in recycling dead trees, stumps, and roots.	
Counties or Equivalents - Causing Damage (Yes/No):	
CA - Alpine County - 06003 (Yes) CA - El Dorado County - 06017 (Yes) CA - Mono County - 06051 (Yes) CA - Nevada County - 06057 (Yes) CA - Placer County - 06061 (Yes) CA - Sierra County - 06091 (Yes) CA - Tuolumne County - 06109 (Yes) CO - Mesa County - 08077 (Yes) CO - Montrose County - 08085 (Yes) ID - Adams County - 16003 (Yes) ID - Bannock County - 16005 (Yes) ID - Bear Lake County - 16007 (Yes) ID - Bingham County - 16011 (Yes) ID - Blaine County - 16013 (Yes) ID - Boise County - 16015 (Yes) ID - Bonneville County - 16019 (Yes) ID - Butte County - 16023 (Yes) ID - Camas County - 16025 (Yes) ID - Caribou County - 16029 (Yes) ID - Cassia County - 16031 (Yes) ID - Clark County - 16033 (Yes) ID - Custer County - 16037 (Yes) ID - Elmore County - 16039 (Yes) ID - Franklin County - 16041 (Yes) ID - Fremont County - 16043 (Yes) ID - Gem County - 16045 (Yes) ID - Idaho County - 16049 (Yes) ID - Lemhi County - 16059 (Yes) ID - Madison County - 16065 (Yes) ID - Oneida County - 16071 (Yes) ID - Owyhee County - 16073 (Yes) ID - Pavette County - 16075 (Yes)	

ID - Power County - 16077 (Yes)
ID - Teton County - 16081 (Yes)
ID - Twin Falls County - 16083 (Yes)
ID - Valley County - 16085 (Yes)
ID - Washington County - 16087 (Yes)
NV - Carson City - 32510 (Yes)
NV - Clark County - 32003 (Yes)
NV - Douglas County - 32005 (Yes)
NV - Elko County - 32007 (Yes)
NV - Eureka County - 32011 (Yes)
NV - Lincoln County - 32017 (Yes)
NV - Lyon County - 32019 (Yes)
NV - Mineral County - 32021 (Yes)
NV - Nye County - 32023 (Yes)
NV - Storey County - 32029 (Yes)
NV - Washoe County - 32031 (Yes)
NV - White Pine County - 32033 (Yes)
UT - Beaver County - 49001 (Yes)
UT - Box Elder County - 49003 (Yes)
UT - Cache County - 49005 (Yes)
UT - Carbon County - 49007 (Yes)
UT - Daggett County - 49009 (Yes)
UT - Davis County - 49011 (Yes)
UT - Duchesne County - 49013 (Yes)
UT - Emery County - 49015 (Yes)
UT - Garfield County - 49017 (Yes)
UT - Grand County - 49019 (Yes)
UT - Iron County - 49021 (Yes)
UT - Juab County - 49023 (Yes)
UT - Kane County - 49025 (Yes)
UT - Millard County - 49027 (Yes)
UT - Morgan County - 49029 (Yes)
UT - Piute County - 49031 (Yes)
UT - Rich County - 49033 (Yes)
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UT - San Juan County - 49037 (Yes)
UT - Sanpete County - 49039 (Yes)
UT - Sevier County - 49041 (Yes)
UT - Summit County - 49043 (Yes)
UT - Tooele County - 49045 (Yes)
UT - Uintah County - 49047 (Yes)
UT - Utah County - 49049 (Yes)
UT - Wasatch County - 49051 (Yes)
UT - Washington County - 49053 (Yes)
UT - Wayne County - 49055 (Yes)
UT - Weber County - 49057 (Yes)
WY - Fremont County - 56013 (Yes)
WY - Lincoln County - 56023 (Yes)
WY - Park County - 56029 (Yes)
WY - Sublette County - 56035 (Yes)
WY - Teton County - 56039 (Yes)
WY - Uinta County - 56041 (Yes)

Damage Agent:	Armillaria root disease
	<i>Armillaria spp.</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:33:54 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:35:05 PM
FS Region:	Region 4
Host(s):	Douglas-Fir, Engelmann Spruce, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method:	General Observation
Setting(s):	Rural Forest
Pest Origin:	Native
Acres Affected:	0
Affected Area:	
Narrative:	
Evidence of Armillaria root disease can be found throughout the Intermountain Region. However, the fungus functions primarily as a weak pathogen or saprophyte in most locations, causing little direct tree mortality. In Utah, it may act as a primary pathogen, killing mature and immature lodgepole pine and mature fir and spruce on cool, moist sites at high elevation.	
Counties or Equivalent - Causing Damage (Yes/No):	
CA - Alpine County - 06003 (Yes) CA - El Dorado County - 06017 (Yes) CA - Mono County - 06051 (Yes) CA - Nevada County - 06057 (Yes) CA - Placer County - 06061 (Yes) CA - Sierra County - 06091 (Yes) CA - Tuolumne County - 06109 (Yes) CO - Mesa County - 08077 (Yes) CO - Montrose County - 08085 (Yes) ID - Adams County - 16003 (Yes) ID - Bannock County - 16005 (Yes) ID - Bear Lake County - 16007 (Yes) ID - Bingham County - 16011 (Yes) ID - Blaine County - 16013 (Yes) ID - Boise County - 16015 (Yes) ID - Bonneville County - 16019 (Yes) ID - Butte County - 16023 (Yes) ID - Camas County - 16025 (Yes) ID - Caribou County - 16029 (Yes) ID - Cassia County - 16031 (Yes) ID - Clark County - 16033 (Yes) ID - Custer County - 16037 (Yes) ID - Elmore County - 16039 (Yes) ID - Franklin County - 16041 (Yes) ID - Fremont County - 16043 (Yes) ID - Gem County - 16045 (Yes) ID - Idaho County - 16049 (Yes) ID - Lemhi County - 16059 (Yes) ID - Lincoln County - 16063 (Yes) ID - Madison County - 16065 (Yes) ID - Oneida County - 16071 (Yes) ID - Owyhee County - 16073 (Yes)	

ID - Payette County - 16075 (Yes)
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ID - Teton County - 16081 (Yes)
ID - Twin Falls County - 16083 (Yes)
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ID - Washington County - 16087 (Yes)
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NV - Clark County - 32003 (Yes)
NV - Douglas County - 32005 (Yes)
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NV - Eureka County - 32011 (Yes)
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NV - Lincoln County - 32017 (Yes)
NV - Lyon County - 32019 (Yes)
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NV - Storey County - 32029 (Yes)
NV - Washoe County - 32031 (Yes)
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UT - Beaver County - 49001 (Yes)
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UT - Cache County - 49005 (Yes)
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WY - Sublette County - 56035 (Yes)
WY - Teton County - 56039 (Yes)
WY - Uinta County - 56041 (Yes)

Damage Agent:	balsam woolly adelgid
	<i>Adelges piceae</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:42:34 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:45:16 PM
FS Region:	Region 4
Host(s):	Grand Fir, Subalpine Fir
Survey Method:	Ground Survey
Setting(s):	Rural Forest, Urban
Pest Origin:	Exotic
Acres Affected:	3840000
Affected Area:	
This insect has been identified on all forested lands north of Interstate 84. Delimitation surveys south of I-84 will continue.	
Narrative:	
In the Intermountain Region, the presence of this introduced forest insect was not verified in southern Idaho until 2001 when it was found causing subalpine fir mortality in residential areas in Cascade and McCall. Delimitation surveys conducted from 2006 through 2010 by Idaho Department of Lands and Forest Health Protection personnel determined the distribution of balsam woolly adelgid (BWA) extended south of the Salmon River affecting most of Idaho's forests. Delimitation surveys will continue in the southern Idaho forests as personnel are available. 2011 was the first year that a balsam woolly adelgid (BWA) aerial signature was identified and used to map affected trees. Signature identification and survey results will improve with experience and ground verification of mapped signatures. Forest Health Protection staff established 60 long-term impact plots in 2008 across National Forests in southern Idaho. Selected plots were monitored in 2010 and 2011 to track changes in stand structure, BWA impacts and population changes over time. Monitoring will continue in 2012.	
Counties or Equivalents - Causing Damage (Yes/No):	
ID - Adams County - 16003 (Yes) ID - Boise County - 16015 (Yes) ID - Custer County - 16037 (Yes) ID - Elmore County - 16039 (Yes) ID - Fremont County - 16043 (Yes) ID - Gem County - 16045 (Yes) ID - Idaho County - 16049 (Yes) ID - Lemhi County - 16059 (Yes) ID - Teton County - 16081 (Yes) ID - Valley County - 16085 (Yes) ID - Washington County - 16087 (Yes)	

Damage Agent:	balsam woolly adelgid
	<i>Adelges piceae</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:27:25 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:29:53 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, 2011 was the first year that a balsam woolly adelgid (BWA) aerial signature was identified and used to map affected trees. Signature identification and survey results will improve with experience and ground verification of mapped signatures. In the future, aerial survey will be used as a monitoring tool to identify areas impacted by BWA.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	black stain root disease
	<i>Leptographium wageneri</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:36:07 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:36:43 PM
FS Region:	Region 4
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method:	Ground Survey
Setting(s):	Rural Forest
Pest Origin:	Native
Acres Affected:	3050
Affected Area:	
Narrative:	
In the Intermountain Region, aerial detection and ground surveys have discovered approximately two-dozen black stain root disease centers in pinyon pine stands. This disease is most prevalent in Utah and Nevada where pinyon pine is abundant. However, the disease-infected pinyon pines occur on fewer than 1,500 acres in each state. The northern range of pinyon pine extends into southern Idaho primarily on Bureau of Land Management lands where approximately 50 acres are infected with black stain root disease.	
Counties or Equivalents - Causing Damage (Yes/No):	

CA - Alpine County - 06003 (Yes)
CA - Mono County - 06051 (Yes)
CA - Sierra County - 06091 (Yes)
CO - Mesa County - 08077 (Yes)
CO - Montrose County - 08085 (Yes)
ID - Cassia County - 16031 (Yes)
ID - Franklin County - 16041 (Yes)
NV - Carson City - 32510 (Yes)
NV - Churchill County - 32001 (Yes)
NV - Clark County - 32003 (Yes)
NV - Douglas County - 32005 (Yes)
NV - Elko County - 32007 (Yes)
NV - Esmeralda County - 32009 (Yes)
NV - Eureka County - 32011 (Yes)
NV - Humboldt County - 32013 (Yes)
NV - Lander County - 32015 (Yes)
NV - Lincoln County - 32017 (Yes)
NV - Lyon County - 32019 (Yes)
NV - Mineral County - 32021 (Yes)
NV - Nye County - 32023 (Yes)
NV - Pershing County - 32027 (Yes)
NV - Storey County - 32029 (Yes)
NV - Washoe County - 32031 (Yes)
NV - White Pine County - 32033 (Yes)
UT - Beaver County - 49001 (Yes)
UT - Box Elder County - 49003 (Yes)
UT - Cache County - 49005 (Yes)
UT - Carbon County - 49007 (Yes)
UT - Daggett County - 49009 (Yes)
UT - Duchesne County - 49013 (Yes)
UT - Emery County - 49015 (Yes)
UT - Garfield County - 49017 (Yes)
UT - Grand County - 49019 (Yes)
UT - Iron County - 49021 (Yes)
UT - Juab County - 49023 (Yes)
UT - Kane County - 49025 (Yes)
UT - Millard County - 49027 (Yes)
UT - Piute County - 49031 (Yes)
UT - San Juan County - 49037 (Yes)
UT - Sanpete County - 49039 (Yes)
UT - Sevier County - 49041 (Yes)
UT - Tooele County - 49045 (Yes)
UT - Uintah County - 49047 (Yes)
UT - Utah County - 49049 (Yes)
UT - Wasatch County - 49051 (Yes)
UT - Washington County - 49053 (Yes)
UT - Wayne County - 49055 (Yes)
WY - Sweetwater County - 56037 (Yes)

Damage Agent:	Douglas-fir beetle
	<i>Dendroctonus pseudotsugae</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:45:45 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:46:39 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, Douglas-fir beetle-caused tree mortality more than doubled in 2011. Increased mortality of Douglas-fir trees to Douglas-fir beetles (DFB) may be due to stress caused by several years of defoliation by western spruce budworm and increased DFB populations from the 2007 fire damaged trees. The number of trees and acres affected may be underestimated due to the masking effect of western spruce budworm defoliation. Heavily defoliated trees that have also been attacked by DFB have little foliage to "fade" and may go undetected as beetle-killed trees. Most of the 2011 Douglas-fir mortality was mapped in southern Idaho. Tree mortality increased on the Boise, Payette, Sawtooth and Salmon-Challis National Forests. Douglas-fir mortality decreased on the Caribou-Targhee National Forest and Bureau of Land Management lands in Idaho. In Utah, Douglas-fir mortality increased on the Ashley National Forest and private lands, but decreased on all other ownerships.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	Douglas-fir tussock moth
	<i>Orgyia pseudotsugata</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:46:52 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:47:43 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, Douglas-fir tussock moth defoliation intensity remained low. Most of the defoliation was reported in Nevada on the Humboldt-Toiyabe National Forest. In Utah, one 100-acre area on the Uinta-Wasatch-Cache National Forest was recorded by aerial survey.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	drought
	<drought>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 3:10:03 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 3:12:10 PM
FS Region:	Region 4
Host(s):	
Survey Method:	Finding of No Significant Impact
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, drought related damage decreased significantly in Nevada.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	fir engraver
	<i>Scolytus ventralis</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:47:53 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:48:30 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, fir engraver beetle-caused fir mortality remained low in 2011. Most of the damage occurred on National Forest and private lands in Utah. Fir mortality increased slightly in Nevada occurring primarily on the Humboldt-Toiyabe National Forest. The number of trees and acres affected may be underestimated due to the masking effect of western spruce budworm defoliation. Heavily defoliated trees that have also been attacked by fir engraver beetle have little foliage to "fade" and may go undetected as beetle-killed trees.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	forest tent caterpillar
	<i>Malacosoma disstria</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:48:56 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:49:39 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, forest tent caterpillar-caused defoliation increased 18 percent in 2011. All of the defoliation occurred in the central to northeastern portion of Nevada. Defoliation was not reported in Idaho, Utah or Wyoming in 2011.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	gypsy moth
	<i>Lymantria dispar</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:50:21 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:51:00 PM
FS Region:	Region 4
Host(s):	Unknown Hardwood
Survey Method:	Ground Survey
Setting(s):	Rural Forest, Urban
Pest Origin:	Exotic
Acres Affected:	0
Affected Area:	
Narrative:	
The first gypsy moth outbreak detected in Region 4 occurred in Utah in 1988. Gypsy moth populations were subsequently eradicated. Since then, single male moths have been captured in various locations throughout the Region. For two consecutive years, no male moths were captured in southern Idaho, Nevada, Utah or western Wyoming. Pheromone traps for detection will be deployed in 2012.	
Counties or Equivalent - Causing Damage (Yes/No):	
ID - Ada County - 16001 (No) UT - Summit County - 49043 (No) UT - Utah County - 49049 (No)	

Damage Agent:	Jeffrey pine beetle
	<i>Dendroctonus jeffreyi</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:51:48 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:52:15 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, Jeffrey pine beetle-caused mortality remains low. The number of acres affected increased slightly (less than 10 percent) in 2011 after two consecutive years of slight decreases. Most of the Jeffrey pine mortality occurred on the Bridgeport and Carson Ranger Districts of the Humboldt-Toiyabe National Forest.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	mistletoe
	<mistletoe>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:39:23 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:39:23 PM
FS Region:	Region 4
Host(s):	California Red Fir, Douglas-Fir, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western Larch, Western White Pine, White Fir, Whitebark Pine
Survey Method:	Ground Survey
Setting(s):	Rural Forest, Urban
Pest Origin:	Native
Acres Affected:	0
Affected Area:	
Narrative:	
These plant parasites remain the most widespread and frequently observed disease within the Intermountain Region. Currently, dwarf mistletoe incidence information is updated using data gathered by the Forest Inventory and Analysis (FIA) group. The 2008 FIA data indicated that one or more dwarf mistletoe species were present at various levels of intensity on 15% of all plots surveyed. Incidence of the major dwarf mistletoe species by percent of host type infected within the Intermountain Region is: lodgepole pine 26%, pinyon pine 20%, Douglas-fir 14%, ponderosa/Jeffrey pine 7%, limber pine 12%, and whitebark pine 6%. No FIA plots were located in infected Great Basin bristlecone pine stands.	
Counties or Equivalents - Causing Damage (Yes/No):	
CA - Alpine County - 06003 (Yes) CA - El Dorado County - 06017 (Yes) CA - Mono County - 06051 (Yes) CA - Nevada County - 06057 (Yes) CA - Placer County - 06061 (Yes) CA - Sierra County - 06091 (Yes) CA - Tuolumne County - 06109 (Yes) CO - Mesa County - 08077 (Yes) CO - Montrose County - 08085 (Yes) ID - Adams County - 16003 (Yes) ID - Bannock County - 16005 (Yes) ID - Bear Lake County - 16007 (Yes) ID - Bingham County - 16011 (Yes) ID - Blaine County - 16013 (Yes) ID - Boise County - 16015 (Yes) ID - Bonneville County - 16019 (Yes) ID - Butte County - 16023 (Yes) ID - Camas County - 16025 (Yes) ID - Caribou County - 16029 (Yes) ID - Cassia County - 16031 (Yes) ID - Clark County - 16033 (Yes) ID - Custer County - 16037 (Yes) ID - Elmore County - 16039 (Yes) ID - Franklin County - 16041 (Yes) ID - Fremont County - 16043 (Yes) ID - Gem County - 16045 (Yes) ID - Idaho County - 16049 (Yes) ID - Lemhi County - 16059 (Yes) ID - Madison County - 16065 (Yes) ID - Oneida County - 16071 (Yes)	

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UT - Grand County - 49019 (Yes)
UT - Iron County - 49021 (Yes)
UT - Juab County - 49023 (Yes)
UT - Kane County - 49025 (Yes)
UT - Millard County - 49027 (Yes)
UT - Morgan County - 49029 (Yes)
UT - Piute County - 49031 (Yes)
UT - Rich County - 49033 (Yes)
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WY - Lincoln County - 56023 (Yes)
WY - Park County - 56029 (Yes)
WY - Sublette County - 56035 (Yes)
WY - Teton County - 56039 (Yes)
WY - Uinta County - 56041 (Yes)

Damage Agent:	mountain pine beetle
	<i>Dendroctonus ponderosae</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:52:50 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:53:24 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, mountain pine beetle-caused tree mortality decreased by 67 percent. This outbreak remains the largest recorded in the Region with nearly 4.1 million trees killed across 800,000 acres in 2011. The reduction in tree mortality is due to exhaustion of large diameter, suitable host trees. Smaller, less suitable hosts lead to decreased brood production/survival. Additionally, at higher elevations, the past two years have been cooler than previous years causing decreased MPB development and increased brood mortality rates. The majority of the tree mortality occurred in south-central Idaho where it increased on the Payette National Forest, but decreased on the Boise, Caribou-Targhee, Salmon-Challis and Sawtooth National Forests. In Utah, MPB-caused tree mortality decreased by 75 percent in 2011, which is the first decrease in tree mortality since 2003. In western Wyoming, tree mortality decreased by 78 percent on the Bridger-Teton National Forest. In Nevada, MPB-caused tree mortality decreased 40 percent. Although, MPB-caused tree mortality has decreased, the MPB population is still at outbreak levels in many areas.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	pine engraver
	<i>Ips pini</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:54:01 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:54:31 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, pine engraver beetle-caused tree mortality increased but were reported as less than 1,000 acres across the Region. Most of the aerially observed mortality was reported on the Boise National Forest in Idaho. Pine mortality in Nevada was at endemic levels and no damage was aerially reported in Utah or western Wyoming. However, following the collapse of mountain pine beetle populations, additional mortality and top-kill of residual lodgepole pine is often attributed to this insect. Ground observations indicate that tree mortality caused by this insect actually increased in northeastern Utah and western Wyoming.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	pine needle scale
	<i>Chionaspis pinifoliae</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:57:36 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:58:04 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, aerially mapped pinyon needle scale impacts on pinyon pine decreased by 47 percent in 2011. Most of the defoliation occurred in Nevada on the Humboldt-Toiyabe National Forest and Bureau of Land Management lands. No damage was reported in Utah. The recent outbreak of pinyon scale was first reported in 2008 in eastern Nevada. In 2009 extensive heavy defoliation was recorded during aerial detection surveys in many Nevada locations.. Serious outbreaks of pinyon needle scale have occurred before in the southwestern United States. Recurring infestations increase pinyon tree susceptibility to Pinyon Ips-caused tree mortality. Scale infestations can kill small trees and seriously weaken larger trees as the affected needles drop from the tree. Thin crowns cause a ghostly "see-through" appearance of the forest. In many locations, this scale outbreak is occurring in conjunction with pinyon sawfly, Neodiprion eduliculus defoliation. In some areas of Nevada, pinyon pines repeatedly attacked by scale are being attacked by twig beetles causing twig or branch kill and in some instances tree mortality. Twig beetle predators have increased significantly in 2011 and are suppressing populations of the twig beetle in some areas. Populations of the twig beetle are still abundant at lower elevations. The above average winter in 2010-11 provided additional moisture for the affected pinyon producing an epicormic flush of new needles improving tree health.	
Counties or Equivalent - Causing Damage (Yes/No):	

Damage Agent:	pinyon ips
	<i>Ips confusus</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:55:11 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:55:43 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
Historically, in the Intermountain Region, pinyon-juniper woodlands were not annually surveyed. However, an extended drought in the late 1990's caused an increase in pinyon ips populations that resulted in a significant increase in pinyon pine mortality over a three year period. Annual aerial surveys were conducted until populations of this insect collapsed. Most of the pinyon/juniper woodlands have not been aerially surveyed since 2004. Pinyon pine mortality continues to decline in Nevada and no damage was reported in Utah.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	pinyon sawfly
	<i>Neodiprion edulicolus</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:56:37 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:56:58 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, pinyon sawfly-caused defoliation of pinyon pine decreased in Nevada for the second consecutive year. Most of the defoliation occurred on the Humboldt-Toiyabe National Forest and Bureau of Land Management lands. The last reported widescale outbreak of this defoliator occurred in 1965. Since 1965, there have been periodic, small scale outbreaks affecting less than 100 acres. Although this is the third year it was mapped during aerially surveys, subsequent ground visits indicate the defoliation had been occurring for the previous 3-4 years, resulting in some tree mortality in affected sites. Possible reasons for the sudden increased activity include drought, an abundance of host type, mild winters, low parasite/predator populations or a combination of these factors. In many locations, sawfly defoliation is occurring in conjunction with pinyon scale defoliation. Heavily defoliated trees are seriously stressed or killed by these insects with multiple years of defoliation causing significant loss of both small and large trees.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	spruce beetle
	<i>Dendroctonus rufipennis</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:58:43 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:59:14 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, spruce beetle-caused mortality decreased slightly overall. However, outbreak populations of the insect are still occurring in some locations. Most of the spruce mortality was mapped in Utah, where it was detected at some level on all National Forests. The most abundant tree mortality was mapped on the Uinta-Wasatch-Cache and Fishlake National Forests. Spruce mortality also occurred on private lands in Utah. In western Wyoming, spruce mortality was mapped on the northern portion of the Bridger-Teton National Forest. Scattered and isolated spruce mortality was mapped in southern Idaho. No spruce mortality was reported in Nevada.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	subalpine fir mortality
	<subalpine fir mortality>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:59:57 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 3:00:26 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	In the Intermountain Region, mortality of subalpine fir attributed to the subalpine fir mortality complex was first described in the late 1980's. Tree mortality caused by symptoms associated with decline peaked in the mid-1990's during a prolonged drought when over one million trees were affected by this complex. There are a number of fungal pathogens involved in this complex, most commonly Cytospora canker <i>Valsa abietis</i> in south-central Idaho. The primary insects causing subalpine fir mortality are: western balsam bark beetle, <i>Dryocoetes confusus</i>, and balsam woolly adelgid, <i>Adelges piceae</i>. In 2011, subalpine fir mortality decreased for the fourth consecutive year. Most of the reported subalpine fir mortality was mapped in southern Idaho on the Caribou-Targhee, Salmon-Challis and Sawtooth National Forests. The largest decrease in subalpine fir mortality, 85 percent, occurred on the Bridger-Teton National Forest in western Wyoming after seven consecutive years of higher rates of tree mortality. In Utah, aerial surveys recorded subalpine mortality on all National Forests and adjacent private land. In Nevada, subalpine fir mortality is at endemic levels.
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	sudden aspen decline
	<sudden aspen decline>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:37:49 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:38:26 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In 2006 and 2007, permanent Evaluation Monitoring plots were installed in the Intermountain Region to determine the cause of sudden aspen decline. Aerial detection survey data from 2005 was used to identify and establish 75-permanent plots in accessible symptomatic stands throughout the range of aspen in Utah, Nevada, and western Wyoming. In 2007, fifty-one additional declining aspen stands were surveyed in southern Idaho. All established plots will continue to be monitored over time. Drought, succession to other vegetation types-linked to fire exclusion, and damage to aspen suckers by grazing, browsing, and /or trampling all contribute to the decline of aspen forests. Eventual synthesis of this report data with other survey data should provide more insight into the aspen decline phenomenon. Aspen dieback and defoliation mapped by aerial detection survey decreased in 2011, from 50,800 in 2010 to 18,500, considerably less than the peak aspen dieback that occurred from 2006 through 2008. The famous Pando clone on the Fishlake National Forest is experiencing significant tree mortality causing substantial management concern. Two aspen bark beetles, <i>Trypophloeus populi</i> and <i>Procryphalus mucronatus</i>, appear to be playing an increasing role in this dieback. Neither beetle species were common in the Intermountain Region until recently. Field observations indicate that <i>Trypophloeus</i> attack trees that still have a large component of "green bark", while <i>Procryphalus</i> is found in trees in which the bark is almost entirely dead. In 2006-2008 ground surveys, aspen bark beetles were rarely detected, but are now common in many Utah stands showing dieback and decline symptoms.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	western pine beetle
	<i>Dendroctonus brevicomis</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 3:01:39 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 3:02:01 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, ponderosa pine mortality attributed to western pine beetle decreased by 71 percent from 2010 levels. The absence of drought conditions has increased tree vigor negatively impacting western pine beetle populations. Most of the mortality was mapped in Idaho on the Boise and Payette National Forests following wildfire activity in 2007. In Utah, ponderosa pine mortality attributed to this insect is at endemic levels. No damage was reported in Nevada.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	western spruce budworm
	<i>Choristoneura occidentalis</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 3:02:35 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 3:03:01 PM
FS Region:	Region 4
Host(s):	
Survey Method:	GIS Data to FHTET (IDS)
Setting(s):	Not Applicable
Pest Origin:	Not Applicable
Acres Affected:	0
Affected Area:	
Narrative:	
In the Intermountain Region, western spruce budworm-caused tree defoliation increased in area by nearly 43 percent in 2011, compared to 2010. Populations of this insect remain at outbreak levels in most of south-central Idaho. The increase occurred across various land ownerships in southern Idaho with the largest affected acreage occurring on the Boise National Forest where moderate-heavy defoliation has occurred for the seventh consecutive year. Additional areas in southern Idaho with extensive acres of defoliation include the Salmon-Challis and Caribou-Targhee National Forests. Douglas-fir beetle outbreaks are occurring in some of these heavily defoliated areas, often on the driest, south-facing sites. Additional Douglas-fir beetle-caused mortality will likely occur in sites that have been repeatedly defoliated. In Utah, acres affected by western spruce budworm defoliation decreased by 80 percent from 2010 reported acres. No western spruce budworm activity was reported in Nevada. In western Wyoming, defoliation occurred in small, widely scattered pockets in 2011.	
Counties or Equivalents - Causing Damage (Yes/No):	

Damage Agent:	white pine blister rust
	<i>Cronartium ribicola</i>
Survey Year:	2011
Submitted By:	Kathleen Matthews
Submission Date:	12/12/2011 2:41:08 PM
Last Edited By:	Kathleen Matthews
Last Edited Date:	12/12/2011 2:41:56 PM
FS Region:	Region 4
Host(s):	Limber Pine, Western White Pine, Whitebark Pine
Survey Method:	Ground Survey
Setting(s):	Nursery, Rural Forest, Urban
Pest Origin:	Exotic
Acres Affected:	1000000
Affected Area:	
Narrative:	
Since its introduction into North America over a century ago, white pine blister rust (WPBR) has spread throughout the range of most western five-needle pines in the Intermountain West. There are two notable exceptions. In Utah, the pathogenic fungus has yet to be detected on pine hosts. Secondly, WPBR has not been detected on Great Basin bristlecone pine despite the high susceptibility of the host to the disease in greenhouse tests. Great Basin bristlecone pine is the oldest living tree species on the North American Continent. White pine blister rust is most noted for its impact on western white pine in the Pacific Northwest. In the Intermountain Region WPBR is most frequently found on whitebark and limber pines. Whitebark pine inhabits harsh high mountain sites above 7,000 feet in Idaho, western Wyoming, and northern Nevada and along the California/Nevada border. Limber pine is more diverse, occupying various elevational niches in forest and range sites on predominantly calcareous soils in the Intermountain Region. Western white pine is found only on the Humboldt-Toiyabe National Forest along the California/Nevada border. Plots have been established in the Intermountain Region to survey and monitor white pine blister rust spread and intensification on limber, whitebark, Great Basin bristlecone and western white pine.	
Counties or Equivalent - Causing Damage (Yes/No):	

CA - Alpine County - 06003 (Yes)
CA - Placer County - 06061 (Yes)
ID - Adams County - 16003 (Yes)
ID - Blaine County - 16013 (Yes)
ID - Boise County - 16015 (Yes)
ID - Bonneville County - 16019 (Yes)
ID - Butte County - 16023 (Yes)
ID - Camas County - 16025 (Yes)
ID - Caribou County - 16029 (Yes)
ID - Clark County - 16033 (Yes)
ID - Custer County - 16037 (Yes)
ID - Elmore County - 16039 (Yes)
ID - Fremont County - 16043 (Yes)
ID - Idaho County - 16049 (Yes)
ID - Lemhi County - 16059 (Yes)
ID - Payette County - 16075 (Yes)
ID - Teton County - 16081 (Yes)
ID - Valley County - 16085 (Yes)
NV - Carson City - 32510 (Yes)
NV - Douglas County - 32005 (Yes)
NV - Elko County - 32007 (Yes)
NV - Lyon County - 32019 (Yes)
NV - Washoe County - 32031 (Yes)
WY - Fremont County - 56013 (Yes)
WY - Lincoln County - 56023 (Yes)
WY - Park County - 56029 (Yes)
WY - Sublette County - 56035 (Yes)
WY - Teton County - 56039 (Yes)